

Use Attainability Analysis

for

WBID 2873 Musco Creek

Submitted by MEC/ERC

To Missouri Department of Natural Resources Water Protection Program

> On December 15, 2008

Data Sheet A - Water Body Identification

I. Water Body Information (for water body being surveyed)

. water body information (for water body being surveyed)
Water Body Name (from USGS 7.5' quad): Musco Creek
Missouri Water Body Identification (WBID) Number: 2873
8-digit HUC: 0820202
County(ies), Listed Upstream to Downstream: Madison
Upstream Legal Description (from Table H): 22, 34 N, 6 E
Downstream Legal Description (from Table H): 26, 34 N, 6 E
Number of sites evaluated: 3
List all site numbers, consecutively upstream to downstream:
Sitel, Site 2, Site 3
Include a Site Location Map(s). The map must include all requirements detailed in the Missouri Recreational Use Attainability Analysis: Water Rocky Supply and Assessment Protocol (Section IV D. 8 c)

Use Attainability Analyses: Water Body Survey and Assessment Protocol (Section IV.D.8.a).

II. Facility Information (list all permitted discharges to this water body segment)

Facility Name(s) and Permit Number(s):		
Oak Ridge Mobile Home Park	mo 0123340	
BSA Astronaut Hall WWTF	MO 0131890	
Plummer Family Theatre	MO 0125750	
Cedar Rock MHP	MO 0122009	

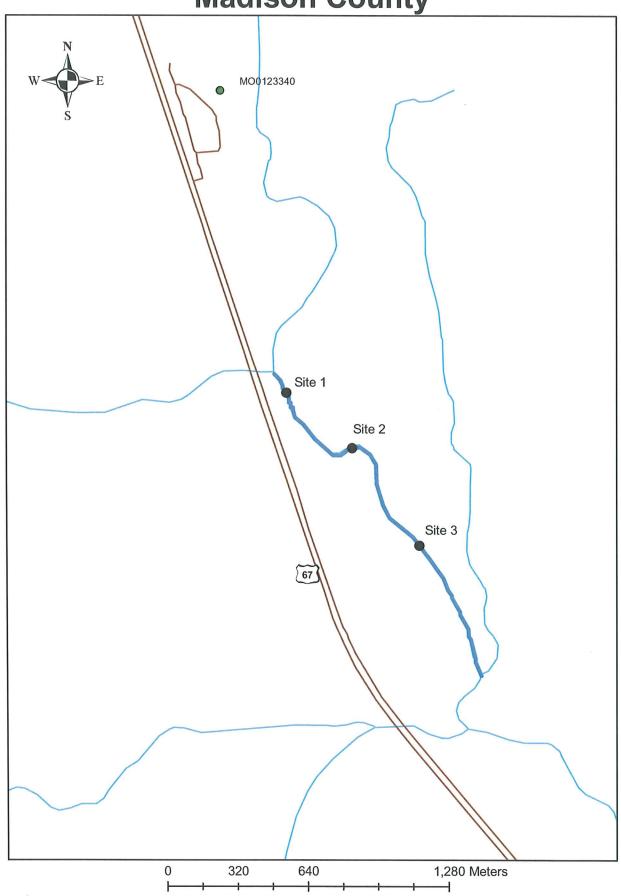
III. UAA Surveyor (please PRINT legibly)

٠.	OAA Guiveyor (picase i idiri	icgioly)	
	Name of Surveyor: Cody L	uebbering	Telephone Number: (573) 443-4100
	Organization/Employer: ^J ME	C Water	Resources Inc.

Please verify that you have completed all sections of all data sheets, checked all applicable boxes, provided a map (that includes all requirments listed in the Missouri Recreational Use Attainability Analysies: Water Body Survey and Assessment Protocol) and that this form is complete.

Signed:_	Cody Tuelling	Date:

WBID #2873 - Musco Creek
Madison County



WBID#_	2873	
Site#	01	

Data Sheet B – Site Characterization (Page 1 of 3)

					(mu	st be com	npleted for each site)		
			12-8-0 Musco	o8 O Creek	11:2:	2	Location Desc 100m Do	ription (e	e.g., road crossi	ng): SBARF Scouting Ridge R
	Current	Weath	er Conditio	ons: 45°F, 6	loud	1. Wind	y Facility Name	(s): 1)	ita Shee	t A
	Weather	Cond	itions for P	ast 10 days: ,15,	nch r	ainfall	Permit Numbe		Osta She	
	Official 1	Droug	ht Conditio	ns at time of this	survey	(search I	ONR home page for	"drough	t"):	
	No droug	ght 🖪;	Phase I □	; Phase II □; Phas	se III 🗆	; Phase I	V □; Unknown □			
Si	te Loca									
							CATOR PROJECTION		ERS) zontal Accuracy	D
	Site 01	East	ing (UTM)	X):0733069	Nort	thing (U	ГМ Y):4168674	(EPE	/ FOM / PDOI	P) 1, 2 Wieters
	Site 11 Easting (UTM X): 073314 8				Nort	thing (U	ГМ Y):4168516	Horiz (EPE	zontal Accuracy / FOM / PDOI	Meters
Ph	otos:									
	Photo II	D#	Pho	to Purpose	Photo	ID#	Photo Purpos	se	Photo ID#	Photo Purpose
	2873_0	01_	ÜP	5	2873	-OL DNS				
	Photo II	D#	Pho	to Purpose Photo		ID#	Photo Purpos	se	Photo ID#	Photo Purpose
		150 222								
	Photo II	D#	Pho	to Purpose	Photo	ID#	Photo Purpos	se	Photo ID#	Photo Purpose
Us	es Obs	ervec]*: (Uses a	actually observed	at the t	ime of su	ırvey.)			
	☐ Swin			☐ Skin diving			JBA diving	□ Tub	ing	☐ Water skiing
	□ Wind	l surfii	ng	☐ Kayaking		□ Boa	ting	□ Wad	ling	☐ Rafting
	☐ Hunt			☐ Trapping		☐ Fish			e of the above	☐ Other:
	Describe:	(Includ	de number of interviews.)	individuals recreating,	photo-do	ocumentation	on of evidence of recreat	ional uses,	etc. Use Data She	et D- Recreational Use Interview
		J	ŕ	NA						

	<u>Field Data Sh</u>	neets for Recreationa	Use Stream S	Surveys			
	Data Shee	t B – Site Characte	rization (Page	2 of 3)			
ırrounding Conditio	ns*: (Mark all that pro	omote or impede recreational use	. Attach photos of evid	dence or unusua	l items of i	nterest.)	
☑ City/county parks	☐ Playgrounds	MDC conservation la	1		-		esidential
🕏 Campgrounds	☐ State parks	☐ National forests	☐ Natur	e trails		Stairs/w	alkway
☐ Boating accesses	☐ Fence	□ No trespass sign	☐ Steep	slopes		Other:	
<u>'</u>	Se*: (Attach photos ar	nd reference in "Dhotoe" eastion)					
ρίσι	٠ <u>٠</u>						
ridence of Human U	Se*: (Attach photos ar	nd reference in "Photos" section.)			T		
ridence of Human Us	Se*: (Attach photos ar ☐ Foot paths/prin	ts Dock/platform	□ Campin		1	pe swing	
idence of Human Us Roads RV / ATV Tracks	Se*: (Attach photos ar ☐ Foot paths/prin ☐ Fire pit/ring				1	pe swing estock V	
ridence of Human Us	Se*: (Attach photos ar ☐ Foot paths/prin	ts	-		1		
ridence of Human Us Roads RV / ATV Tracks	Se*: (Attach photos ar ☐ Foot paths/prin ☐ Fire pit/ring	ts Dock/platform	-		1		
ridence of Human Us ☐ Roads ☐ RV / ATV Tracks ☑ None of the above	Se*: (Attach photos ar Foot paths/prin Fire pit/ring Comments / Other:	ts	-		1		
ridence of Human Us ☐ Roads ☐ RV / ATV Tracks ☑ None of the above	Se*: (Attach photos ar Foot paths/prin Fire pit/ring Comments / Other:	ts	-	Tackle	1		
Roads RV / ATV Tracks None of the above Ibstrate*: (These values	Se*: (Attach photos ar Foot paths/prin Fire pit/ring Comments / Other: should add up to 100%.) % Gravel	ts ☐ Dock/platform ☐ NPDES Discha /// /// % Sand	rge □ Fishing % Silt	Tackle	□ Liv	estock V	Vatering
Roads RV / ATV Tracks None of the above Cobble	Se*: (Attach photos ar Foot paths/prin Fire pit/ring Comments / Other: Should add up to 100%.) Gravel (Note amount of vegetation)	ts	rge	Tackle % M	□ Liv	estock V	Vatering

Odor:	Cowers.	□ Musle.	Chamical	(A) N	
Odor.	☐ Sewage	☐ Musky	☐ Chemical	2 None	☐ Other:
Color:	🔁 Clear	☑ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	□ Sludge	個 Solids	Fine sediments	□ None	☐ Other:
Surface Deposit:	□ Oil	□ Scum	□ Foam	2 None	☐ Other:

^{*}This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

tr.	Stroom Nama 9 M	/BID# <u>Musco</u> [seek 28	73	Data of Curva	y 12-8-08
	Site #O \	- -	icen =		Date of Surve	y <u>/ 2 0 0 0</u>
		Field Data Shee	ets for Recreation	nal Use Stream	Surveys	
		Data Sheet I	B – Site Charac	terization (Pag	e 3 of 3)	
Add	itional Stream M	orphology: (Record iso	lated pools or other feature	es identified during the s	urvey that may support recre	ational uses.)
	Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
			A I/A			
			/\//			
						
Con	nments: (Please reco	ord any additional comments her	e.)			
		NIA				
	ase verify that yo	u have completed al	l sections, checke	ed all applicable	e boxes, and that the	he form is
	-	nnel Collecting Data:	Travis How	ell Codu	Luebherina	
C	roviou's Ciamatum	lade 4. Min		Data of S	12-8-08	-
Oro	eyor's Signature: _	nnel Collecting Data:	Sources Inc.	Date of Survey	Technician	***************************************
U18				CONTION. T. T. CO	, - 2	

Data Sheet B Revised: December 19, 2007

Page 3 of 3

Field Data Sheets for Recreational Use Stream Surveys Data Sheet C - Field Survey Results

										9			-1			Later 1		Disso	olved O	xygen	ALCOHOL:	South Bu
	Stream	Name:	Mus	co (r	eek	-	Waterb	ody ID:	287	/3	-	Site #:	01		-	Date:	12-8	-08		Time:	11.2	. Z
	Estimat	ed Chan	nel Incis	ion:	0.2	(m) (he	ight betw	een low	bank wi	dth and	water)								11.9			
	GPS Lo	cation -	Easting	(UTM X), Northi	ing (UTN	И Y), Но	rizontal	Accurac	y Estima	te (EPE /	PDOP /	FOM)	,	+	1			~		(mg/L)	
	01	UTM X	C: 073	306	9	_	UTM Y:	4168	3674		-	+/- 9	,2	(meters)	1/84	Dissolved Oxygen:(%				(% sat)		
	14										-		Specif	ic Cond:	275	1.6	(μS/cm))				
	Average Stream Width: 7.0 (meters) Length of Survey Segment: 150 (meters) (20x average stream width)										(meters)	Wa	ater Tem	perature:	3.	7	(°C)					
			20.00						(2	on aver	.go 511 cm	ii widii)						porararo		,	,()	
	Fiel	ld Staff:	TH	, CL										•								
	ler in the		sincife) a		Jack St.	18 m 18 18				Tra	nsect C	ross-Se	ction		(dostal)		al the site	nakoki	house	tika se	CTA figure	0.000
	0	1	0)2	()3	0	4	0	5	_	6		7	_	8)9	_	10	_	11
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
. 1	0.35	0.08	0.67	0.40	1.13	0.21	0.92	0.05	0.63	0.11	0.31	0.08	0.09	0.08	0.24	0.14	1.07	0.30	0,72	0.13	0.84	0.30
2	0.70	0.10	1.34	0.39	2.26	0.30	1.84	0.10	1.26	0.13	0.62	0.13	0.18	0.06	0.48	0.21	2.14	0.29	1.44	0.08	1.68	0, 29
3	1.05	0.12	2.01	0.46	3.39	0.38	2.76	0.10	1.89	0.09	0.93	0.16	0.27	0.05	0.72	0.20	3.21	0.33	2.16	0.14	2,52	0.26
4	1.40	0.12	2.68	0.39	4.52	0.50	3.68	0.19	2.52	0.09	1.24	0.06	0.36	0.07	0.96	0.18	4.28	0.41	2.88	0.09	3.36	0.19
5	1.75	0.18	3.35	0.45	5.65	0.46	4.60	0.31	3.15	0.08	1.55	0.10	0.45	0.08	1.20	0.32	5.35	0.39	3.60	0.16	4.20	0,16
6	2.10	0.08	4.02	0.26	6.78	0.48	5.52	0.40	3.78	0.05	1,86	0.11	0.54	0.08	1.44	0.32	6.42	0.38	4.32	0.20	5.04	0.06
7	2.45	0.05	4.69	0,20	7.91	0.51	6.44	6.46	4.41	0,05	2.17	0.08	0.63	0.05	1.68	0:25	7.49	0.39	5.04	0.22	5,88	0.03
8	2.80	0.10	5.36	0.00	9.04	6.47	7.36	0.52	5.04	0.07	2.48	0.03	0.72	0.03	1,92	0.18	8.56	0.40	5,76	0.19	6.72	0.08
9	3.15	0.0%	6.03	0.05	10.17	0.40	8.28	0,30	5.67	0.03	2.79	0.02	0.81	0.02	2.16	0.12	9.63	0.37	6.48	0.16	7.56	
Right Bank	3,50	0.80	6,70	0.00	11.30	0.00	9.20	0.06	6.30	0.00	3,10	0.00	0.90	0.06	2.40	0.00	10.70	0.00	7.20	0.00	8,40	0.00
Feature Type	Ru	n	Ru	h	Poo	i	P 00	1	RV	n	Rif	fle	Rif	fle	Ru	n	800		Rur	1	Ru	n
(riffle, run, or pool)	110	F1 2	71 01	/ \	100	1	, ,,	-	, ,		- 1		7111	1 0	F 11 11 11	5 A.						

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.1 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Surveyor's Signature:

Cody Lulling

ate: 12-8-08

WBID#	2873
Site#	2

Data Sheet B – Site Characterization (Page 1 of 3)

				(mus	st be con	mpleted for each site)					
			8 11 10 Creek			Location Desc		e.g., road cross				
Current	Weath	er Conditio	ons: Cloudy, Wi	'ndy,	50°F	Facility Name	(s): Da	ta Shee-	ł A			
			ast 10 days: .15			Permit Numbe		lata She				
						DNR home page for	NR home page for "drought"):					
No droug	No drought ∰; Phase I □; Phase II □; Phase IV □; Unknown □											
Site Loca	ion:											
LOCATIO	ON CO	ORDINATES	(UNIVERSAL TRA	NSVER	SE MER	CATOR PROJECTION						
Site 01	East	ing (UTM 2	x):0733252	Nort	thing (U	TM Y):4168399	(EPE	contal Accuracy / FOM / PDOI	P) 7. 3 Meters			
Site 11	Site 11 Easting (UTM X): 073339L					TM Y):4168351		ontal Accuracy / FOM / PDOI				
Photos:												
Photo II		Pho	to Purpose	Photo	ID# Photo Purpos		se	Photo ID#	Photo Purpose			
2873	02_	ups										
Photo II	D #	Pho	to Purpose	Photo ID#		Photo Purpos	Photo Purpose		Photo Purpose			
2873-0	22-	Ons										
		2000										
Photo II) #	Pho	to Purpose	Photo	ID#	Photo Purpos	se	Photo ID#	Photo Purpose			
Uses Obse	erve	d*: (Uses <u>a</u>	actually observed	at the t	ime of s	urvey.)						
☐ Swin	nming		☐ Skin diving		□ SC	UBA diving	□ Tub	ing	☐ Water skiing			
□ Wind	surfi	ng	☐ Kayaking		□ Во	ating	□ Wac	ling	☐ Rafting			
☐ Hunt			☐ Trapping		☐ Fis			e of the above	☐ Other:			
		de number of i interviews.)	ndividuals recreating,	photo-do	ocumentat	ion of evidence of recreat	ional uses,	etc. Use Data She	et D- Recreational Use Interview			
-						\wedge	IIA					

Stream Name & WBII	D#_Musco	Cre	ek 2	2873		Date	of Surve	y <u>/2-</u>	<u>3-08</u>				
one "	Field Data Sheets for Recreational Use Stream Surveys Data Sheet B - Site Characterization (Base 2 of 3)												
	Data Sheet B – Site Characterization (Page 2 of 3) Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)												
Surrounding Condition	ns*: (Mark all that pro	mote o	r impede recreational	uses. Attac	h photos of evid	ence or unusua	l items of i	nterest.)					
☑ City/county parks	☐ Playgrounds	\$ZÎN	IDC conservatio	n lands	☐ Urban	areas		Rural Re	esidential				
☐ Campgrounds	☐ State parks	lational forests		☐ Nature	trails		Stairs/w	alkway					
□ Boating accesses □ Fence □ No trespass sign ☒ Steep slopes ☒ Other: Ѡ္ѻѻ													
Comments: Boy Scout area w/ Missouri Department of Conservation signs posted													
Evidence of Human Us	Se*: (Attach photos an	d refere	ence in "Photos" sect	ion.)				~					
□ Roads	☐ Foot paths/prin	ts	☐ Dock/platfo	rm	☐ Camping	g Sites	☐ Ro	pe swing	S				
☐ RV / ATV Tracks	☐ Fire pit/ring		□ NPDES Dis	charge	☐ Fishing	Гасklе	☐ Liv	estock V	Vatering				
None of the above	Comments / Other:		NIA										
Substrate*: (These values s	<u> </u>		0/ 0-1		0/ 0:14	0/ 34	1/01	24	A/ D. I. I.				
Aquatic Vegetation*:	% Gravel	5 on or alg	al growth at the asse	ssment site.)	% Silt		id/Clay	30	% Bedrock				
Abundant al	gal growth	~	s/ aquat	, E G	rasses	pres	ent.						

Water Characteristics * Acatallate and a

itei Cilaiacteils	tics . (Mark an ti	hat appry.)			
Odor:	☐ Sewage	□ Musky	☐ Chemical	None	☐ Other:
Color:	Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	□ Sludge	Solids	Fine sediments	□ None	☐ Other:
Surface Deposit:	□ Oil	□ Scum	☐ Foam	None None	☐ Other:

^{*}This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

itional Stream N	Data Sheet lorphology: (Record is	B – Site Chara		•	ational uses
Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (r
		NA			
	ord any additional comments he				
Large b	oulders wlin	stream			

Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.

Printed Names of Personnel Collecting Data: Travis	Howell Cody Luebbering
Surveyor's Signature: Lady Julia	Date of Survey: 12-8-08
Organization: ERC, MEL Water Resources =	Inc. Position: Field Technician

Field Data Sheets for Recreational Use Stream Surveys Data Sheet C - Field Survey Results

	Stream Name: Musco Creek Waterbody ID: 2873 Site #: 02											_				Disso	olved O	xygen				
											_	Site #:		<u>Z</u>	-	Date:	12-8	3-08	-	Time:		: 49
	Estimat	ted Chan	nel Incis	ion:	Osal	_(m) (he	ight betv	een low	bank wi	dth and	water)					D	issolved	Oxygen:	12.	96	(mg/L)	
			Easting (ing (UTN	И Y), Ho UTM Y:	rizontal مارات	Accuracy 8 3 9 9	y Estima 7	te (EPE	PDOP / +/- 7.		(meters)			Dissolved Oxygen: 102.3 (% sat)					
	01 UTM X: 0733252 UTM Y: 4168399 +/- 7.5 (meters) 11 UTM X: 0733394 UTM Y: 4168356 +/- 4.8 (meters)												•						• ` ′			
												(meters)					0,0)			
	(To determine Length of Reach) (20x average stream width)													Wa	iter Tem	perature:		7	(°C)			
	Field Staff: TH, LL																					
	Transect Cross-Section																					
		01)2	0)3		4	()5	()6	()7	0	8	(9]	10	1	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	`		 	0,20			0.53				 		 	 			0.16			0.02		<u> </u>
2	<u> </u>		├──	0.13		 	 				 									0.06	4.5	
3		 		 	 															0.13		
4	-	<u> </u>	2.36											1							1.64	
5	}	 							-											0.15		
6		 	3.54																		2.46	
7	1		4.13										 							0.05		
8	5.68	·····				 														0.05		
9			5.31	-															1.71		3.69	
Right Bank	1.10	0.00	5.90	I	1.30	0.00	5.50	0.00	ს. 50	0.00			1.60	0.00	2,00	0.00	1.60	0.00	1,70	0.00	4.10	0.00
Feature Type (riffle, run, or pool	Ru	n	Ru	in	Ri	11	Ri	1/1	Ru	カ	Ru	n	Ru	n :	Rui	n	Ru	ኅ	Ru	1	RL	in

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.1 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter,

Surveyor's Signature:

WBID#	2873
Site#	3

Data Sheet B – Site Characterization (Page 1 of 3) (must be completed for each site)

	Date & 1	ime:	12-8-	08 12	1:18		Location Desc	ription (e.g., road cross	ing):				
				o Creek			100 m downstr	From	51/e 2					
	Current '	Weath	er Conditio	ons: Cloudy, Wir	ndy.	52°F	Facility Name	(s):	ata Shee	t A				
	Weather	Cond	itions for P	ast 10 days: 151	ich re	ain fall	Permit Numbe	Permit Number(s): Data Sheet A						
					3.5		NR home page for "drought"):							
	No droug	ght 🗖 ;	; Phase I □;	; Phase II □; Phas	e III 🗆	; Phase I	☐; Unknown ☐							
Si	te Loca													
							CATOR PROJECTION							
	Site 01 Easting (UTM X):0733526 North						MY):4/68267		zontal Accuracy / FOM / PDO					
	Site 11	East	ing (UTM	x):0733577	Nort	hing (UT	TM Y): 416 8101		zontal Accuracy / FOM / PDO					
Ph	hotos:													
	Photo II		Pho	to Purpose	Photo	ID#	Photo Purpos	Photo Purpose		Photo Purpose				
	2873-0	33_	UPS											
	Photo II	1 4	Dha	na Dumana	Dl	ID#	DI . D	Dhoto Dumaga						
	2873-		PIIO	to Purpose	Photo	ID#	Photo Purpos	Photo Purpose		Photo Purpose				
	006	-)-	Pas											
	Photo II)#	Phot	to Purpose	Photo	ID#	Photo Purpos	se	Photo ID#	Photo Purpose				
Us	es Obse	ervec	d*: (Uses <u>a</u>	actually observed	at the ti	me of su	rvey.)							
	□ Swim	ming		☐ Skin diving		□ SCU	JBA diving	□ Tub	ing	☐ Water skiing				
	□ Wind	surfi	ng	☐ Kayaking		□ Boat	ting	□ Wad	ding	☐ Rafting				
	☐ Hunt	ing		☐ Trapping		☐ Fish	ing	Non	e of the above	☐ Other:				
	Describe: when cond	(Includucting	de number of i	ndividuals recreating,	photo-do					et D- Recreational Use Interview				
							NIA	NIA						

Stream Name & WBID#	Musco	Creek	2873	Date of Survey
Site # <u>03</u>				

Data Sheet B - Site Characterization (Page 2 of 3)

Juliouliui	ng Conditio	(Mark all th	at promote o	or impede recreation	nal uses. Atta	ch photos of ev	dence or unusua	items of	interest.)				
□ City/	county parks	☐ Playgroun	ds 🗆 1	MDC conserva	tion lands	☐ Urba	n areas		Rural R	esidential			
☐ Cam	pgrounds	☐ State park	s 🗆 1	National forests	3	□ Natu	re trails		Stairs/w	alkway			
	ing accesses	☐ Fence	1 🗆	No trespass sig	n	☐ Steep	slopes	包	1 Other: Wooded				
Commen	ts: N/A												
	,												
Evidence :	of Human Us	Se*: (Attach phot	os and refere	ence in "Photos" s	ection.)								
☐ Road		☐ Foot paths/		☐ Dock/plat		☐ Campir	g Sites	☐ Roj	oe swing	ŢS			
□ RV /	ATV Tracks	☐ Fire pit/ring	5	□ NPDES D	ischarge	☐ Fishing	Tackle			Watering			
None	of the above	Comments / Oth											
	NIA												
	ubstrate*: (These values should add up to 100%.)												
40	% Cobble	% Grave	:1	5 % Sand		% Silt	% Mu	d/Clay	55	% Bedrock			
Aq <u>uatic V∈</u>	egetation*:	(Note amount of vege	tation or alg	gal growth at the as	ssessment site.	.)							
algal		abundar			35455	preser	1+						
M-4 Ob		J.							,				
	racteristics	*: (Mark all that ap	ply.)										
Odor:			Musky	☐ Cher	nical	2 None		ther:					
Color:			Green	☐ Gray		☐ Milky		ther:					
Bottom I		Sludge	Solids	☐ Fine	sediments	□ None		ther:					
Surface	Deposit:	Oil 🗆	Scum	☐ Foan	1	None		ther:					

^{*}This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

Stream Name & WBID # _	Musco	Creek	2873	Date of Survey 12~8~08
Site #				

Data Sheet B – Site Characterization (Page 3 of 3)

Channel Feature	Distance from	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	access location (m)		Longin (m)	Wiedian Depth (m)	
		1/A			
	17				
			Westernament of the second		
ments: (Please reco	ord any additional comments here	2.)			
Riparian	50m widegwl	oak and	cedar tre	es, Lots of	bedrocka
Kiparian	50m widegw/	oak and	cedar tre	es, Lots of Large houlde	bedrocka
Kiparian	50m widegw/	oak and	cedar tre	es. Lots of Large boulde	bedrock a
Kiparian	50m widegwl	oak and	cedar tre	es, Lots of Large boulde	bedrocka ers
Kiparian	50m wideg w/	oak and	cedar tre	es. Lots of Large boulde	bedrock a ers
Kiparian	50m wideg w/	oak and	cedar tre	es, Lots of Large boulde	bedrocka ers
Kiparian	50m wideg w/	oak and	cedar tre	es, Lots of Large boulde	bedrocka ers
Kiparian	50m wideg w/	oak and	cedar tre	es. Lots of Large boulde	bedrocka ers
Kiparian	50m wideg w/	oak and	cedar tre	es, Lots of Large boulde	bedrocka ers
Kiparian	50m wideg w/	oak and	cedar tre	es, Lots of Large boulde	bedrock a
se verify that yo	u have completed all				
se verify that yo	u have completed all	sections, check	ed all applicable	e boxes, and that th	
se verify that yo		sections, check	ed all applicable	e boxes, and that th	
se verify that you plete.	u have completed all	sections, check	ed all applicable	e boxes, and that the	
se verify that you plete. ed Names of Personeyor's Signature:	u have completed all	sections, check	ed all applicable Odu Date of Survey	e boxes, and that th	

Field Data Sheets for Recreational Use Stream Surveys Data Sheet C - Field Survey Results

	~		Δ0	/	<i>L</i>		***		") Q"	7 ?		g: "	O.)				Disse	olved O	xygen			
	Stream	Name:	1.1hs	500 (reek	-	Waterb	ody ID:		د /	-	Site #:		>	-	Date:	12-8	-08	_	Time:	/2:,	18	
	Estimat	ted Chan	nel Incis	ion:	0.70	(m) (he	ight betw	veen low	bank wi	dth and	water)					р	issolved	Oxygen:	- /2.	86	(mg/L)		
				(UTM X		ng (UTN	4 Y), Ho	rizontal.	Accurac	y Estima	te (EPE								_	_			
	01 UTM X: 0733520 UTM Y: 4/68267 +/- /0 (meters) 11 UTM X: 0733577 UTM Y: 4/68/01 +/- 8.6 (meters)										D	issolved	Oxygen:	97.	d	.(% sat)							
	Average Stream Width: 4.0 (meters) Length of Survey Segment: 150 (meters)												- (atawa)		Specif	ic Cond:	27	0.4	(μS/cm)				
	(To determine Length of Reach) (meters) (meters) (meters) (condition of Survey Segment: 150 (meters) (20x average stream width)												(meters)	Wa	ater Tem	perature:	3.1	l	(°C)				
	Field Staff: TH, CL																						
	Transect Cross-Section																	Krosno west negative	77701.UVWA19199000111				
		11		12								23.00		7						_			
Station	Distance (m)	01	Distance	02	Distance (m)	3 Durt (1)	Distance (m))4 	Distance (m)	05	Distance (m)	06	Distance (m)	7	Distance (m)	8	Distance (m)	9	Distance (m)	0	Distance	1	
Left Bank	0	Depth (m)	0	Depth (m)	0	Depth (m)	0	Depth (m)	0	Depth (m)	0	Depth (m)	0	Depth (m)	0	Depth (m)	0	Depth (m)	0	Depth (m)	(m) 0	Depth (m)	
1	0.37	0,09	0.23	0.04	0.82	0.12	0.72	0.10	0,29	0,04	1.08	0.11	0,51	0.08	0.78	0,05	0.67	0.18	1.13	0,32	0.71	ļ	
2			·	0.00								0.20					-	l					
3	1.11	0.01	0.69	0.00								0.15											
4	1.48	0.01	0.92	0.12	3,28	0,37	2,88	0.22	1.16	0,02	4.32	0.00	2.04	0.26	3,12	0.14	2.68	0,20	4,52	0.41	2,84	0.26	
5	1.85	0,02	1.15	0.09	4.10	0.32	3,60	0.28	1,45	0,01	5,40	0.25	2,55	0,42	3,90	0.17	3,35	0.24	5.65	0.48	3.55	0.03	
6	2.22	0.10	1.38	0.07	4,92	0,21	4.32	0.27	1.74	0.05	6.48	0,15	3.06	0.34	4.68	0.26	4.02	0.42	6.78	0,43	4.26	0.11	
7	2,54	0.22	1.61	0.05	5.74	0.27	5,04	0.23	2.03	0,05	7.56	0.35	3.57	0.32	5.46	0.21	4.69	0.29	7.41	6,59	4.97	0.20	
8	2.96	0.18	1	0.08								0.36					-						
9		0.13		0.03																0.78	6.39	0.15	
Right Bank	3.70	0.00	2.30	0.00	8.20	0.00	7,20	0.00	2,90	0.00	10.80	0.00	5.10	0,00	7.80	0.00	6,70	0.00	11.30	0.00	7.10	0.00	
Feature Type	Ru	nn	R	uh	Po	01	Ru	n	Ru	17	Ru	۸	RV	n	Rui	,	Poo	(P	ool	Ri	nn	
(riffle, run, or pool)	Transects wi	ill be measure		on left descen	ding hank (0	denth) and f	inishine on ri	eht descendin	e bank (0 de	nth) This wi	dth is the we	tted width		-									

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.1 meter unless depth is too deep to measure (then record as ≥ 1)

All measurements to be taken to the nearest 0.01 meter.











